

REMARKS

Claims 1-22 are pending in this application. Claims 1, 8, 16 and 22 are independent claims. Applicants respectfully request reexamination and reconsideration in view of the following remarks.

The examiner continues to use the Intel IXP 1200 manual to reject claims 1-21 as having been anticipated. Applicants disagree.

Claims 1, 8, 16 and 22 recite "inserting a segment of executable code into an unused section of a target microengine's microstore in response to a first context swap of one of a plurality of hardware – supported execution threads of a program executing in the target microengine," or similar language. As explained in an earlier reply, at least this quoted claim feature is totally absent from the Intel IXP 1200 Manual.

The examiner argues that when the IXP 1200 manual refers to "instruction" it means "executable code." One skilled in the art would never equate "instruction" to mean "a segment of executable code." The IXP 1200 Manual refers to a breakpoint. A breakpoint is a location in a program at which execution is halted so that a programmer can examine the program's status, the contents of the variables, and so on. A breakpoint is set and used within a debugger and is usually implemented by inserting at that point some kind of jump instruction, call instruction, or trap instruction that transfers control to the debugger. Insertion of a breakpoint is not an insertion of a segment of executable code.

A segment is defined as a section of a program that, when compiled, occupies a contiguous address space and that is usually position independent, i.e., it can be loaded anywhere in memory.

The IXP 1200 Manual discloses a single instruction referred to as a breakpoint. Applicants' claimed invention recites inserting a segment of executable code. A segment refers to a series of instructions and the series of instructions are inserted; they do not transfer program control to some external debugger as does a breakpoint.

Accordingly, claims 1, 8, 16 and 22 are not anticipated by the IXP 1200 manual.

The examiner uses Xu to reject claims 1-15 as having been anticipated. More specifically, the examiner argues that Xu's "patch code" refers to "executable code" and Xu's "base-trampoline" refers to "target microengine."

Applicants submit that the examiner's argument is inaccurate. Xu discloses a trampoline structure in Figure 1. An application program calls a function. No segment of code is inserted. The function call points to a base trampoline. No base trampoline is inserted into the application. The base trampoline points to mini-trampolines. The mini-trampolines are like function calls and are not inserted into the base trampoline. More specifically, "Paradyn patches a jump to a base-trampoline, and relocates the instructions that were over written." This is still very different from applicants' quoted claim feature. Xu still describes how a traditional breakpoint causes a jump to another routine. Accordingly, claims 1-15 are not anticipated by Xu.

The examiner uses the IXP 1200 Manual in combination with common knowledge to reject claim 22 as having been obvious.

As described above with reference to claims 1, 8 and 16 the IXP 1200 Manual fails to describe or suggest "inserting a segment of executable code." It is not common language to insert a segment of executable code as described above. It is common knowledge to insert breakpoints and function calls. Accordingly, claim 22 is not rendered obvious by Xu and common knowledge.

The examiner uses Xu to reject claim 22 as having been obvious.

For at least the reasons discussed above, claim 22 is not rendered obvious by Xu.

The examiner uses Xu and Jacobson to reject claims 16-21 as having been obvious.

Xu fails to describe or suggest "insert a segment of executable code into a used section of a microstore associated with the context." Jacobson fails to make up for this deficiency in Xu since Jacobsen merely describes an asynchronous microengine. Accordingly, claims 16-21 are not rendered obvious by Xu and Jacobson.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above

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may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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